IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 040679/0439

Applicant: Haruhiko MURATA

Title: IMPROVEMENT IN OR RELATING TO CIRCUIT BOARD HAVING SOLDER BUMPS

Serial No.: 08/825,400

Filed: March 28, 1997

Examiner: Norris, Jeremy C.

Art Unit: 2827

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56 and 37 CFR §1.97

Commissioner for Patents
Washington, D.C. 20231

Sir:

Submitted herewith on Form PTO SB/08 is a list of documents known to Applicant in order to comply with Applicant's duty of disclosure pursuant to 37 CFR 1.56. A copy of the listed document is being submitted to comply with the provisions of 37 CFR 1.97 and 1.98.

The submission of any documents herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicant does not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a prima facie prior art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The instant Information Disclosure Statement is being filed after the mailing date of the final action under 37 C.F.R. §1.113. The IDS is also being filed under the provisions set forth in 37 C.F.R. 1.97(i), whereby the Information Disclosure Statement and listed references will be placed in the file at the PTO, but is not required to be considered. As prosecution is still pending, Applicants do request that the Examiner consider the references, and initial and return the attached PTO SB/08 form.

RELEVANCE OF EACH DOCUMENT

Document A1 relates to a fixture for forming component-mounting solder bumps on a circuit board.

Document A2 relates to forming a solder bump electrode on pads of an Integrated Circuit wafer, whereby a solder ball is fused on each pad with a hot plate.

Document A3 relates to a semiconductor chip that has an adhering layer cap, bump electrode, jig and spacer.

Document A4 relates a flip chip semiconductor device in which heights of ends of solder bumps are arranged to evaluate electrical characteristics of a chip.

Respectfully submitted,

February 12, 2002
Date

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PTO/SB/08 (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Date Submitted: February 12, 2003

(use as many sheets as necessary)

Sheet 1 of 1

Complete if Known	
Application Number	08/825,400
Filing Date	03/28/1997
First Named Inventor	Haruhiko MURATA
Group Art Unit	2827
Examiner Name	J. Norris
Attorney Docket Number	040679-0439

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document Number	U.S. Patent Document Kind Code[2] (*if known*)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Office[3]	Number[4]	Kind Code[5] (*if known*)	Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	A1		2-46794		JAPAN	02/16/1990		X
	A2		2-58229		JAPAN	02/27/1990		X
	A3		4-037137		JAPAN	02/07/1992		X
	A4		5-335311		JAPAN	12/17/1993		X

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[6]

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2]See attached Kinds of U.S. Patent Documents. [3]Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4]For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6]Applicant is to place a check mark here if English language Translation is attached.